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Infrastructure, environment, facilities

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INDUSTRIAL

Michael Ribordy
On-Scene Coordinator
USEPA Region 5
77 West Jackson Boulevard
Mail Code: SE-5J
Chicago, IL 60605-3507

Subject:
Traffic Control Plan
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site

Date:
May 23, 2008

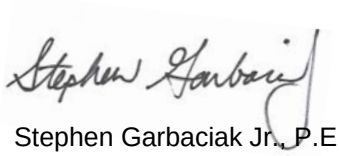
Dear Mr. Ribordy:

On behalf of the Kalamazoo River Study Group (KRSG), please find enclosed the Traffic Control Plan, updated to reflect changes for the 2008 construction season. This plan includes details on traffic routes, entrances, traffic control measures, safety procedures, communication, and manifesting.

Each hard copy contains a CD with a portable document format (PDF) version of the entire document. Additional copies are being sent on CD as presented in the cc list below.

Sincerely,

ARCADIS



Stephen Garbaciak Jr., P.E.
Vice President

Contact:
Stephen Garbaciak

Phone:
312.332.4937 ext 12

Email:
steve,garbaciak@
arcadis-us.com

Our ref:
B0064586

Enclosures: Mr. Michael Ribordy: 1 hard copy and a copy on CD

Copies:
Paul Bucholtz, MDEQ (1 hard copy and 1 CD)
Mark P. Brown, Ph.D., Georgia-Pacific Corporation (CD only)
Chase Fortenberry, P.G., Georgia-Pacific Corporation (CD only)
David Guier, Millennium Holdings, LLC (CD only)
Erik Wilson, City of Plainwell (1 hard copy and 1 CD)
Thad Beard, City of Otsego (1 hard copy and 1 CD)

ARCADIS
Infrastructure, environment, facilities

**Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site**

# Traffic Control Plan

Kalamazoo River Study Group

May 2008

ARCADIS
Infrastructure, environment, facilities

**Allied Paper, Inc./Portage Creek/**
**Kalamazoo River Superfund Site**

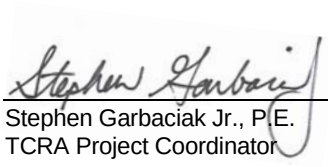
**Former Plainwell Impoundment Time**
**Critical Removal Action**

# Traffic Control Plan

Kalamazoo River Study Group

May 2008

ARCADIS



Stephen Garbaciak Jr., P.E.
TCRA Project Coordinator

**Traffic Control Plan**

Allied Paper, Inc./Portage Creek/
Kalamazoo River Superfund Site

Former Plainwell Impoundment
Time Critical Removal Action

Prepared for:
Kalamazoo River Study Group

Prepared by:
ARCADIS
10559 Citation Drive
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Michigan 48116
Tel 810.229.8594
Fax 810.229.8837

Ref.:
B0064586

Date:
May 23, 2008

## Tables



## Figures



## Appendices



## Attachment 1 – TCRA Design Report Contract Drawings

**Acronym List**

| | |
|---|---|
| ANSI | American National Standards Institute |
| dBA | A-weighted decibels |
| EQ | Environmental Quality Company |
| HAZWOPER | Hazardous Materials Site Workers |
| HSM | Health and Safety Manager |
| HSP | Health and Safety Plan |
| KRSG | Kalamazoo River Study Group |
| MDEQ | Michigan Department of Environmental Quality |
| MDNR | Michigan Department of Natural Resources |
| mg/kg | milligrams per kilogram |
| M-89 | Michigan State Route 89 |
| mph | miles per hour |
| NRR | Noise Reduction Rating |
| OSC | On-Scene Coordinator |
| PCBs | polychlorinated biphenyls |
| PEAS | Pollution Emergency Alerting System |
| PID | photoionization detector |
| PPE | personal protective equipment |
| PVC | polyvinyl chloride |
| TCP | Traffic Control Plan |
| TCRA | Time Critical Removal Action |

| | |
|---|---|
| TSCA | Toxic Substances Control Act |
| USDOT | Department of Transportation |
| USDOT-FHWA | United States Department of Transportation - Federal Highway Administration |
| USEPA | United States Environmental Protection Agency |

# 1. Introduction

## 1.1 Background

The United States Environmental Protection Agency (USEPA) has determined that a Time-Critical Removal Action (TCRA) is necessary to address the presence of polychlorinated biphenyls (PCBs) in the former Plainwell Impoundment. The primary objective of the TCRA construction activities is to remove targeted sediments, river bank soils, and floodplain soils within the former Plainwell Impoundment. The TCRA will be completed as described in the *Former Plainwell Impoundment Time-Critical Removal Action Design Report* (TCRA Design Report; ARCADIS BBL 2007a), which was approved by USEPA in February 2007.

The removal action will take place in the former Plainwell Impoundment, which is located in Gun Plain and Otsego Townships, downstream of Plainwell, Michigan. It is roughly bounded on its upstream (or southeastern) end by the Main Street Bridge in Plainwell, and on its downstream (or northwestern) end by the Plainwell Dam (Figure 1-1). As part of the TCRA activities planned for 2008, soil and sediment will be removed and transported to one of three offsite licensed disposal facilities, depending on PCB concentration and landfill capacity. Additional disposal facilities may also be identified for use during the 2008 construction season. The Traffic Control Plan (TCP) will be amended if disposal facilities other than those currently identified are to be used.

## 1.2 Purpose

There will be increased truck traffic associated with implementation of the removal action. Equipment will include 20-ton double-axle dump trucks and/or tractor trailers, construction worker vehicles, delivery vehicles, and visitor vehicles. During removal activities, it is anticipated that an average of 20 to 30 truck loads of dewatered soil and sediment material will be hauled daily from the project area to the offsite licensed disposal facilities. A combination of off-road trucks and equipment and over-the-road haul vehicles will be used to carry out the various transport-related tasks. The off-road vehicles will travel only within the active construction site, while the over-the-road trucks will be used to haul materials on public roads.

This TCP includes details on traffic routes, entrances, traffic control measures, safety procedures, communication, and manifesting. An assessment of exiting road conditions was completed on April 19, 2007, and an inspection of new road stretches to be used in 2008 will be conducted in April of 2008. Documentation of the April 2007 assessment is maintained in the project files located at the ARCADIS office in Brighton, Michigan. Prior to implementing the

removal action, dry runs will be performed on all primary and alternate routes to identify potential problem areas or areas of significant traffic congestion.

Construction traffic will be directed to travel to and from the project areas along established truck routes. These traffic routes provide efficient travel routes for construction traffic while minimizing the impact on local traffic. Warning signs and traffic controls may be employed (consistent with the 2003 U.S. Department of Transportation - Federal Highway Administration [USDOT-FHWA] *Manual on Uniform Traffic Control Devices* and local/state regulations) to alert local traffic to trucks entering and leaving the project areas via local roads. Also, local law enforcement agencies and highway departments will be consulted and notified of the construction schedule and designated truck routes. During peak periods, the timing of construction traffic may be adjusted to minimize congestion and conflicts with local traffic patterns. There will be no lane closures to create exclusive truck traffic lanes.

This TCP provides details on the potential impacts of increased traffic due to construction and the approach to mitigating these impacts. Section 2 provides an overview of the TCRA and the transportation-related activities. Section 3 describes the procedures for transportation of soils and sediments. Section 4 describes the traffic control procedures, including the designated transportation routes. Section 5 describes shipment documentation procedures and Section 6 describes health and safety procedures. Section 7 describes the roles of ARCADIS personnel and transporters and Section 8 lists emergency contact information. Section 9 describes the contingency plan in cases of blocked transportation routes or spills. Section 10 provides a list of references. The ultimate goal of implementing the measures described in this TCP is to prevent injuries to workers, passengers, and pedestrians; damage to motor vehicles and/or other equipment; and damage to third party property

### 1.3 TCRA Overview-Transportation-Related Activities

Key aspects of the design of the TCRA related to the development of this TCP are briefly summarized in this section. Refer to the TCRA Design Report (ARCADIS BBL 2007a) for a comprehensive description of the project.

After excavation, most soils and sediments will need to be drained to remove excess water before they can be safely transported offsite for disposal. During the removal action, as the sediments and soils are removed, they will be briefly staged on nearby floodplain soils that are also targeted for subsequent removal to drain before being hauled to one of three staging areas (Area 3S, Area 4N and Area 5S; Areas 1N and 2S will not be utilized in 2008; see Drawing G-4.1 from the TCRA Design Report in Attachment 1 [revised to reflect new design details]). Alternatively, where insufficient space is available on floodplain soils targeted for

subsequent removal or where the underlying soils are not conducive to gravity drainage, sediment and soil will be placed directly into haul trucks and temporarily staged at one of the five staging areas so that excess water can be drained.

Temporary access roads will be constructed to allow access to the work areas along the banks of the Kalamazoo River, and to several staging areas established to manage material storage, processing, and transport. Drawing G-4.1 from the TCRA Design Report (revised and included in Attachment 1) presents a plan view of anticipated locations for access roads, staging areas, and project support areas. To the extent practicable, existing access points and roads will be used, and new access points will be added only as required and as property access agreements allow. Four access points to the Kalamazoo River will be necessary to efficiently remove targeted material from the project area in 2008. Two access points utilized in 2007 are no longer necessary to remove material, but will still be utilized to inspect completed work areas. These periodic inspections will require less truck traffic than material hauling activities. To maximize worker safety and minimize disruption to the local community, major material hauling and construction activities will be limited to daylight hours.

As shown on Drawings G-3.1A, G-3.1B, G-3.1C, and G-4.1 from the TCRA Design Report (revised and included in Attachment 1), road improvements will be completed in 2008 to provide access to the project area from the following directions:

- The northwest side of the impoundment, providing access from 106$^{th}$ Street/West River Street and Miller Road.

Road improvements that were completed in 2007 include:

- The southeast side of the impoundment, providing access from 12th Street.
- The northeast side of the upstream-most removal area, providing access from the end of 1st Avenue (no longer in use).
- The southeast side upstream-most removal area, providing access through the City of Plainwell property from the Michigan State Route 89 (M-89)/Allegan Street (no longer in use).
- The south central side of the impoundment along the utility right-of-way near the parking lot of the Meijer store on M-89/Allegan Street.

### 1.4 Characterization of Materials to be Disposed

All excavated soil and sediment removed from areas determined by USEPA to contain PCB concentrations of 50 milligrams per kilogram (mg/kg) or greater will be transported offsite and disposed in a permitted hazardous waste disposal facility. Excavated soil and sediment from the remaining areas (PCB concentrations less than 50 mg/kg) will be transported offsite and disposed in a licensed solid waste (non-hazardous) disposal facility.

Other non-impacted waste material (i.e. non-impacted soils, tree and wood debris, miscellaneous waste material) will be classified as non-hazardous waste. While some of these materials will be transported to and disposed of at a solid waste landfill, some cleared vegetation will be chipped and used either as temporary vegetative cover to support erosion control efforts in the project area or as a sediment/soil solidification amendment. Larger trees (9-inch diameter at breast height or larger) removed during clearing activities may be limbed and transported offsite for disposal, if they are not suitable for chipping. Alternatively, larger tree trunks and stumps from clean areas may be piled in a location of the project area designated for that purpose and accessible to the Michigan Department of Natural Resources (MDNR) after construction is complete. To the extent possible, root wads will be removed and disposed offsite.

### 1.5 Offsite Land Disposal Facilities

As part of the TCRA activities conducted in 2008, all waste, including excavated sediment and soil, will be transported to one of three offsite licensed disposal facilities, as described above. Additional disposal facilities may also be identified for use during the 2008 construction season. This TCP will be amended if disposal facilities other than those currently identified are to be used.

Excavated soil and sediment from areas determined by USEPA to contain PCB concentrations of 50 mg/kg or greater will be transported to the following hazardous waste disposal facility:

Wayne Disposal (an Environmental Quality Company [EQ] facility)

49250 North I-94 Service Drive
Belleville, MI 48111
Phone: 800.592.5489

Excavated soil and sediment and other non-impacted waste material from the remaining areas will be transported to one of the following licensed non-hazardous waste disposal facilities:

C & C Landfill (an Allied Waste Services facility)
14800 P Drive North
Marshall, MI 49068
Phone: 269.781.9742

Ottawa County Farms Landfill (an Allied Waste Services facility)
15550 68th Street
Coopersville, MI 49404
Phone: 616.837.8195

ARCADIS will communicate with Allied Waste Services on a regular basis to determine which landfill has the capacity to accept material at that time.

## 2. Transportation of Soils and Sediments

Drained and solidified soils and sediments excavated from the project area will be transported via tractor trailers or dump trucks to the appropriate offsite licensed disposal facility (see Section 2.2). Appropriate temporary erosion and sediment control measures (i.e., best management practices, including stabilized construction entrances and staging areas, good housekeeping practices), truck decontamination facilities, and appropriate traffic controls (i.e., keeping truck traffic on temporary access roads and off impacted soil material) will be implemented to minimize the potential for tracking impacted soil and sediment materials onto public roadways.

Soil and sediment designated for disposal will be solidified (if needed) to the extent necessary to meet landfill compaction requirements and pass a Paint Filter Liquids test (USEPA SW-846 Method 9095A) prior to leaving the former Plainwell Impoundment project area. Paint Filter Liquids testing will be conducted in accordance with the *Former Plainwell Impoundment Time-Critical Removal Action Construction Quality Assurance Plan* (ARCADIS BBL, 2007b). If soil or sediment does not pass the Paint Filter Liquids test, the material will be further solidified and retested prior to hauling offsite. Excavated soil and sediment may be temporarily stored on staging pads or directly loaded into tractor trailer trucks. If a staging pad is used to temporarily store soil and/or sediment, off-road dump trucks will be used to transfer the material to the staging area for loading and transportation offsite. All tractor trailer trucks will be inspected and decontaminated, if necessary, prior to leaving the work area. If necessary, impacted soil or sediment on the outside of the tractor trailer trucks or the tires will be cleaned off manually with brushes or by using a pressure washer. Tractor trailer trucks containing waste material will be covered to prevent the escape of any material from the truck during transportation. Prior to leaving the project area, each tractor trailer truck will be inspected to verify that there is no soil or sediment on the outside of the truck trailer or on the tires, the truck is properly covered and placarded, and the shipment is properly manifested.

After delivery of the soil or sediment to the appropriate offsite disposal facility, all tractor trailer trucks will be inspected and decontaminated before leaving the disposal site, if necessary, following the same inspection procedures as previously discussed for trucks leaving the TCRA areas.

## 3. Traffic Control Procedures

Routine traffic associated with the construction activities will include 20-ton double-axle dump trucks and/or tractor trailers, construction worker vehicles, delivery vehicles, and visitor vehicles. During removal activities, it is anticipated that a daily average of 20 to 30 truck loads of soil and sediment material will be hauled from the project area to the disposal facilities. Transportation activities will be scheduled to minimize, to the extent practicable, impacts to local traffic. Bulk material deliveries (e.g., solidification agents) will be hauled in separate delivery trucks to avoid disposal material hauling scheduling problems and to ensure proper delivery of materials when needed.

### 3.1 Transportation Routes

As shown on Drawing G-3.1A, G-3.1B, and G-3.1C from the TCRA Design Report (revised and included in Attachment 1), construction traffic will be directed to travel to and from the project areas along established truck routes. These traffic routes will provide for efficient travel for construction traffic while minimizing the impact to local traffic. Warning signs and traffic controls may be employed (consistent with the 2003 USDOT-FHWA *Manual on Uniform Traffic Control Devices* and local/state regulations) to alert local traffic to trucks entering and leaving the project areas via local roads. Also, local law enforcement agencies and highway departments will be consulted and notified of the construction schedule and designated truck routes (see Section 7). During peak periods, the timing of construction traffic may be adjusted to avoid increased congestion and conflicts with local traffic patterns. It is anticipated that transportation of materials will not impede existing traffic flow other than increasing normal truck traffic flow (i.e., there will be no lane closures to create exclusive truck traffic lanes). Prior to commencing hauling operations, field crews will conduct a detailed inspection of road conditions. In addition, dry runs will be performed prior to hauling on all primary and alternate routes to identify potential problem areas or areas of significant traffic congestion.

Before loading, all trucks transporting waste offsite will be staged within the work area to avoid impacts on public roads. Project-related traffic will be coordinated in a manner such that an excessive number of trucks will not be operating at any given time to minimize truck traffic on surrounding surface streets and dust generation in the project area.

Drawings G-3.1A, G-3.1B, and G-3.1C from the TCRA Design Report (revised and included in Attachment 1) show the access route and directions from the project area to Wayne Disposal, C & C Landfill, and Ottawa County Farms Landfill, respectively. As shown on the drawings, it is anticipated that the majority of trucks leaving the north side of the river (Area 4N) to access southbound Highway 131 will travel west on 106$^{th}$ Street, south on Farmers Street, and then

east on M-89/Allegan Street to Highway 131. If this route is inaccessible, trucks will follow the alternate truck route by traveling east on 106th Street, south on Main Street/10th Street, and west on M-89/Allegan Street. Although increased traffic cannot be avoided, material hauling and construction activities will be limited to daylight hours and, where and when necessary, flagmen and/or signage will be employed to manage traffic and to alert non-project-related drivers of new travel patterns.

The maximum speed limit for all vehicles within the project area is 10 miles per hour (mph).

All applicable local, city, and state ordnances will be observed, including Michigan Motor Vehicle Code Act 300 of 1949, which outlines traffic rules for right-of-way, traffic signals, speed restrictions; size, weight, load, and noise restrictions; registration fees; and inspection of vehicles.

# 4. Shipment Documentation

## 4.1 Hazardous Waste Shipments

In accordance with the Toxic Substances Control Act (TSCA) and Part 147, PCB Compounds, of the (Michigan) Natural Resources and Environmental Protection Action, 1994 PA 451, as amended, all excavated soil and sediment with PCB concentrations of 50 mg/kg or greater will require a new Uniform Hazardous Waste Manifest (Form 8700-22) and if necessary, the Continuation Sheet (Form 8700-22A) for interstate and intrastate transportation (Michigan Department of Environmental Quality [MDEQ], Operation Memorandum 147-1, 2006). The Uniform Hazardous Waste Manifest will be completed and accompany shipment of all soil and sediment with PCB concentrations of 50 mg/kg or greater when it is transported to Wayne Disposal licensed hazardous waste disposal facility in Belleville, Michigan. The manifest will identify the Kalamazoo River Study Group (KRSG)[1] as the generator and will be signed by a representative of KRSG. An example of the manifest is provided in Appendix A. Shipping information on each manifest will include:

- Date of shipment
- Quantity of Special Waste shipped
- United States Department of Transportation (USDOT) prescribed shipping name of the material
- USDOT identification number of the material
- USDOT Hazardous Class

All manifests will be submitted to MDEQ with copies to USEPA. Copies of the manifest will be maintained at the ARCADIS project trailer.

[1] The KRSG is comprised of Georgia-Pacific Corporation and Millennium Holdings, LLC, who, along with USEPA, were the signatories to the February 21, 2007 Administrative Order on Consent that describes the requirements of the TCRA.

### 4.2 Non-hazardous Waste Shipments

All non-hazardous waste will be transported to and disposed at the C & C Landfill in Marshall, Michigan or the Ottawa County Farms Landfill in Coopersville, Michigan. Documentation for all non-hazardous waste will be recorded in the project logbook, and all shipping documentation (bills of lading) will be maintained at the ARCADIS project trailer. At a minimum, the following will be recorded for each shipment:

- Date of Shipment
- Quantity of waste material
- Description of waste material
- Disposal facility name and address

## 5. Health and Safety Procedures

Health and safety procedures are presented in the *Multi-Area Health and Safety Plan* (Multi-Area HSP) (ARCADIS BBL 2007c), and all project personnel are required to be familiar with its contents. The objective of the Multi-Area HSP is to provide a mechanism for establishing safe working practices while conducting the TCRA activities. The safety organization, procedures, and protective equipment have been established based on an analysis of potential physical, chemical, and biological hazards. Specific hazard control methodologies have been evaluated and selected to minimize the potential of injury, illness, or other hazardous incident. Section 3.0 of the Multi-Area HSP discusses project hazards and controls; Section 4.0 presents General Safety Practices, and Section 5.0 presents personal protective equipment (PPE) requirements. A copy of the Multi-Area HSP will be available at the project field office during the TCRA activities.

## 6. Roles and Responsibilities

The roles of ARCADIS personnel and transporters are outlined in the following subsections. A summary table for key project personnel and contacts is provided below.

**Table 7-1 – Key Personnel**

| Role | Name | Address/Telephone No. |
|---|---|---|
| **ARCADIS Personnel** | | |
| Design Engineer | Stephen Garbaciak Jr., P.E. | 30 W. Monroe, Suite 1710<br>Chicago, IL 60603<br>Phone: 312.332.4937 ext. 12<br>Cell: 708.203.0566 |
| Health and Safety Manager | Charles P. Webster, CSP | 6723 Towpath Road<br>P.O. Box 66<br>Syracuse, NY 13214<br>Phone: 315.671.9297<br>Cell: 315.247.5971 |
| Traffic Supervisor | Mike Kohagen | On-site<br>Cell: 248.808.3701 |
| **Kalamazoo River Study Group Personnel** | | |
| Georgia-Pacific Corporation Technical Lead | Mark P. Brown, PhD | 10 Upland Way<br>Marion MA 02738<br>Phone: 774.553.5342 |
| Millennium Holdings, LLC Technical Lead | David Guier | One Houston Center, Suite 700<br>1221 McKinney Street<br>Houston, TX 77010<br>Phone: 713.309.7794 |
| **USEPA Region 5 Personnel** | | |
| On-Scene Coordinator (OSC) | Michael Ribordy | 77 W. Jackson Blvd (SR-6J)<br>Chicago, IL 60604<br>Phone: 312.866.4592<br>Cell: 312-802-0234 |

| Role | Name | Address/Telephone No. |
|---|---|---|
| **Michigan Department of Environmental Quality (MDEQ) Personnel** | | |
| MDEQ Project Manager | Paul T. Bucholtz | Remediation & Redevelopment Division<br>525 W. Allegan St., 3rd Floor South<br>Lansing, MI 48933<br>Phone: 517.373.8174 |
| **Michigan Department of Transportation** | | |
| Bureau of Transportation Planning – Statewide Transportation Planning Division | Denise Jackson, Administrator | 425 West Ottawa<br>P.O. Box 30050<br>Lansing, MI 48909<br>Phone: 517.373.2240 |
| **Michigan State Police** | | |
| Michigan State Police<br>1st District Headquarters | Sergeant in Charge | 7119 N. Canal Road<br>Lansing, MI 48913<br>Phone: 517.322-1907 |
| Michigan State Police<br>2nd District Headquarters | Captain Robert Clark | 42145 W. Seven Mile Road<br>Northville, MI 48167<br>Phone: 248.380.1020 |
| Michigan State Police<br>5th District Headquarters | Inspector Tracy McAndrew | 108 W. Michigan Ave.<br>Paw Paw, MI 49079<br>Phone: 269.657.6081 |
| **City of Plainwell** | | |
| Public Safety | Bill Bomar<br>Director | Phone: 269.685.9858<br><br>Police:<br>141 N. Main Street<br>Plainwell, MI 49080<br><br>Fire:<br>115 West Bridge Street<br>Plainwell, MI 49080 |

| Role | Name | Address/Telephone No. |
|---|---|---|
| **City of Otsego** | | |
| Thad Beard | City Manager | 117 E. Orleans Street<br>Otsego, MI 49078<br>Phone: 269.692.3391 |

## 6.1 ARCADIS Personnel

### 6.1.1 Project Coordinator/Design Engineer

The Design Engineer is responsible for verifying that former Plainwell Impoundment TCRA project activities are completed in accordance with the requirements of this TCP. The Design Engineer is responsible for confirming that the Traffic Supervisor has the equipment, materials, and qualified personnel to fully implement the TCP requirements. It is also the responsibility of the Design Engineer to perform the following duties:

- Consult with the Traffic Supervisor on traffic related issues.
- Verify that all incidents and near-misses are thoroughly investigated and reported to the KRSG within 24 hours of notification.
- Approve, in writing, addenda or modifications to this TCP.
- Suspend work or modify work practices, as necessary, for personal safety, protection of property, or regulatory compliance.

### 6.1.2 Health and Safety Manager

The Health and Safety Manager (HSM) is responsible for providing technical support to the Design Engineer and Traffic Supervisor. Inquiries regarding ARCADIS health and safety procedures, project procedures, and other technical or regulatory issues will be addressed to this individual. The HSM is responsible for investigating incidents and near-misses, assisting in developing corrective action plans, and verifying corrective actions.

### 6.1.3 Traffic Supervisor

The Traffic Supervisor is responsible for implementing this TCP and communicating its requirements to project personnel. The Traffic Supervisor is also responsible for discussing issues associated with the established work plan or procedures and impacts related to conditions within the project area so that those changes may be addressed as appropriate in this TCP. Other responsibilities are to perform the following duties:

- Confirm all soil/material on the outside of the tractor trailer trucks or the tires has been cleaned (if necessary) prior to leaving the project area.
- Maintain documentation for all Special Waste and non-hazardous waste material hauled offsite.
- Consult with the HSM on traffic health and safety issues.
- Post the telephone numbers of local public representatives in the project trailer and notify those officials (as appropriate) of the nature of the traffic-related project operations.
- Investigate and report any traffic incidents and near-misses to the HSM.
- Verify that all project personnel have completed applicable transportation training.
- Conduct traffic orientation training and meetings.
- Review transportation activities with respect to compliance with this TCP.
- Maintain required TCP documents and records.

## 6.2 Transporters

Transportation of excavated sediment and soil will be conducted by Terra Contracting, Inc or its designated subcontractors. All truck drivers transporting sediment and soil offsite will be fully licensed and insured and in compliance with USDOT requirements.

## 7. Emergency Contacts

Table 8-1 presents specific emergency contact information.

**Table 8-1 – Emergency Contacts**

| Agency | Telephone No. |
|---|---|
| **Emergency Services** | |
| Fire | 911 (if possible, indicate nearest highway marker or exit name or number) |
| Police | 911 (if possible, indicate nearest highway marker or exit name or number) |
| Ambulance | 911 (if possible, indicate nearest highway marker or exit name or number) |
| **Hazardous Waste Disposal Facility** | |
| Wayne Disposal (EQ 24-hour Dispatch) | Phone: 800.839.3975 |
| **Regulatory Contacts** | |
| Regional Duty Officer, Emergency Response Branch, Region 5 | Phone: 312.353.2318 |
| Pollution Emergency Alerting System (PEAS) | Phone: 800.292.4706 (within Michigan)<br>Phone: 517.373.7660 (outside of Michigan) |
| USEPA OSC: Michael Ribordy | Phone: 312.866.4592<br>Cell: 312-802-0234 |
| National Response Center | 800.424-8802 |
| **ARCADIS Staff** | |
| ARCADIS TCRA Project Coordinator:<br>Stephen Garbaciak Jr., P.E. | Phone: 312.332.4937 ext. 12<br>Cell: 708.203.0566 |
| ARCADIS TCRA Project Manager:<br>Matt Bowman | Phone: 810.225.1920<br>Cell: 989.277.4852 |
| ARCADIS TCRA Site Supervisor:<br>EJ Suardini | On-site<br>Cell: 734.276.2566 |
| ARCADIS HSM: Dave Patterson | Phone: 585.385.0090 ext 27<br>Cell: 585.406.6456 |

# 8. Contingency Plan

## 8.1 Primary and Alternate Routes

If the primary route is unavailable or becomes excessively congested (i.e., due to outside construction or temporary road/lane closures), an alternative route will be used. ARCADIS will notify USEPA, MDEQ, and the City of Plainwell representatives if an alternate route is used or if truck traffic is rerouted. In addition, due to unforeseen circumstances such as extended road closures or road construction activities, access routes may need to be modified during construction. If at any time the access routes require modifications, ARCADIS will discuss the modifications with USEPA, MDEQ, and the City of Plainwell prior to implementation.

Significant hazards during transportation include traveling on congested surface streets, travel through significantly populated areas, and sharp turning radii at some of the surface street intersections. To minimize these hazards, all efforts will be made to conduct transportation activities during regular business hours, transporters will be aware of all local traffic patterns, and if necessary and where possible, temporary traffic lights or other traffic control measures will be placed in strategic locations to improve the flow of traffic and assist transporters in making sharp turns.

## 8.2 Contaminated Soil/Sediment Spills

If a spill of impacted material occurs, the steps to be taken include:

- The TCRA Site Supervisor will be notified, who will contact the TCRA Project Coordinator and TCRA Project Manager (identified in Table 8-1).

- Workers responding to a spill shall be trained Hazardous Materials Site Workers (HAZWOPER) wearing appropriate PPE. Section 5 of the Multi-Area HSP (ARCADIS BBL 2007c) presents a description of the PPE requirements. Varying levels of protection may be required depending on the levels of potential contamination and the degree of physical hazard. At a minimum, if airborne PCBs are not present at levels of concern during spill response activities, Modified Level D PPE must be used when the activities present an increased potential for skin contact with contaminated materials. Modified Level D consists of the following:

  - Work clothing as prescribed by weather conditions
  - American National Standards Institute (ANSI) Z41-approved protective footwear (must be at least 6 inches high up the ankle)

  - Safety glasses (as necessary) with side shields or goggles, meeting ANSI Z87
  - Hard hat, meeting ANSI Z89, when falling object hazards are potentially present
  - Hearing protection (if noise levels exceed 85 A-weighted decibels [dBAF], then hearing protection with a USEPA Noise Reduction Rating (NRR) of at least 20 dBA must be used)
  - Latex/polyvinyl chloride (PVC) overboots when contact with PCB-impacted media is anticipated
  - Face shield in addition to safety glasses or goggles when projectiles or splash hazards exist
  - Nitrile outer gloves worn over nitrile surgical gloves
  - Tyvek® coveralls (polyethylene-coated Tyvek® suits for handling liquids) when body contact with PCB-impacted media is anticipated
  - Personal floatation device if working on or near the water

- For hazardous waste shipments only, if determined necessary by the TCRA Project Coordinator, the TCRA Project Coordinator will notify Wayne Disposal (via the 24-hour emergency number) and the regulatory agencies listed in Table 8-1.

- Document the location of the spill in the site Log book.

- Determine whether or not the contaminated material is entering a waterway (i.e., stream, storm sewer inlet, etc.). If it is, block the flow of material with appropriate equipment, stored onsite in the emergency spill kits.

- Remove the contaminated material as soon as possible and containerize. Depending on the size of the spill, brooms and shovels or larger equipment such as excavators and loaders may be required. If possible, the material will be loaded into the truck from which the spill originated.

- If the spill can not be removed immediately, mark the area where the spill occurred with chalk, degradable spray paint, or caution tape. Secure the spill site from entry by unauthorized personnel by roping off the area and posting warning signs.

- If the spill occurs on an impervious surface and can not be removed immediately, cover the spill area with polyethylene or plastic tarpaulin or moisten with a fine mist to prevent the material from becoming airborne. Remove bulk material and place into a container. Sweep area with a broom and place collected material into a container.

- If possible, dispose of the spilled material at the appropriate offsite disposal facility with the material being transported for disposal.

- Decontaminate any tools or equipment used in the cleanup.

8.2.1 Oil (Fuel, Diesel Fuel, and/or Hydraulic Fluid) Spills

If a spill of oil exceeding 10 gallons occurs, the following steps will be taken:

- The TCRA Site Supervisor will be notified who will contact the TCRA Project Coordinator and TCRA Project Manager (identified in Table 8-1).

- Workers responding to a spill shall be HAZWOPER trained and wear appropriate PPE. Refer to the Multi-Area HSP (ARCADIS BBL 2007c) for a description of the PPE requirements. Section 5 of the Multi-Area HSP (ARCADIS BBL 2007c) presents a description of the PPE requirements. Varying levels of protection may be required depending on the levels of potential contamination and the degree of physical hazard. At a minimum, if airborne dust is not present at levels of concern during spill response activities, Modified Level D PPE must be used when the activities present an increased potential for skin contact with contaminated materials. Modified Level D consists of the following:

  - Work clothing as prescribed by weather conditions
  - ANSI Z41-approved protective footwear (must be at least 6 inches high up the ankle)
  - Safety glasses (as necessary) with side shields or goggles, meeting ANSI Z87
  - Hard hat, meeting ANSI Z89, when falling object hazards are potentially present
  - Hearing protection (if noise levels exceed 85 dBA, then hearing protection with a USEPA NRR of at least 20 dBA must be used)
  - Latex/PVC overboots when contact with impacted media is anticipated
  - Face shield in addition to safety glasses or goggles when projectiles or splash hazards exist
  - Nitrile outer gloves worn over nitrile surgical gloves
  - Tyvek® coveralls (polyethylene-coated Tyvek® suits for handling liquids) when body contact with impacted media is anticipated
  - Personal floatation device if working on or near the water

- If determined necessary by the TCRA Project Coordinator, the TCRA Project Coordinator will notify the regulatory agencies listed in Table 8-1.

- Document the location of the spill in the site Log book.

- Perform a visual assessment and determine preliminary response actions, and alert facility personnel in the area of the spill or release. The TCRA Site Supervisor will then issue evacuation orders, if evacuation is warranted. Attempts to control or stop the release will be made by the HAZWOPER-trained responders, who will also attempt to minimize the spread of contamination to the ground surface or surface water.

- Determine whether or not the material is entering a waterway (i.e., stream, storm sewer inlet, etc.). If it is, block the flow of free product with appropriate equipment, stored onsite in the emergency spill kits.

- After the spill or release has been controlled and contained, the spill will be cleaned up. All spilled materials and response equipment will be properly containerized and disposed of following resolution of the spill or release incident.

- If the spill can not be removed immediately, mark the area where the spill occurred with degradable spray paint and caution tape. Secure the spill site from entry by unauthorized personnel by roping off the area and posting warning signs.

- If the spill occurs on a pervious surface, remove soil until visual observations and photoionization detector (PID) readings indicate there is no contamination. Contaminated soil will be containerized and disposed of at an approved disposal facility in accordance with all applicable state and federal regulations.

- If the spill occurs on an impervious surface, surround the spill with a dike using absorbent material to prevent further spreading. Use absorbent material to remove visible traces of spilled material. Place contaminated absorbent material in a sealable, leak-proof container and label container identifying the fuel for disposal.

- Dispose of the spilled material in properly labeled containers for offsite transport to an approved disposal facility in accordance with all applicable state and federal regulations.

- Sampling and analyses of soil samples may be necessary.

## 9. References

ARCADIS BBL. 2007a. *Former Plainwell Impoundment Time-Critical Removal Action Design Report*, February 2007.

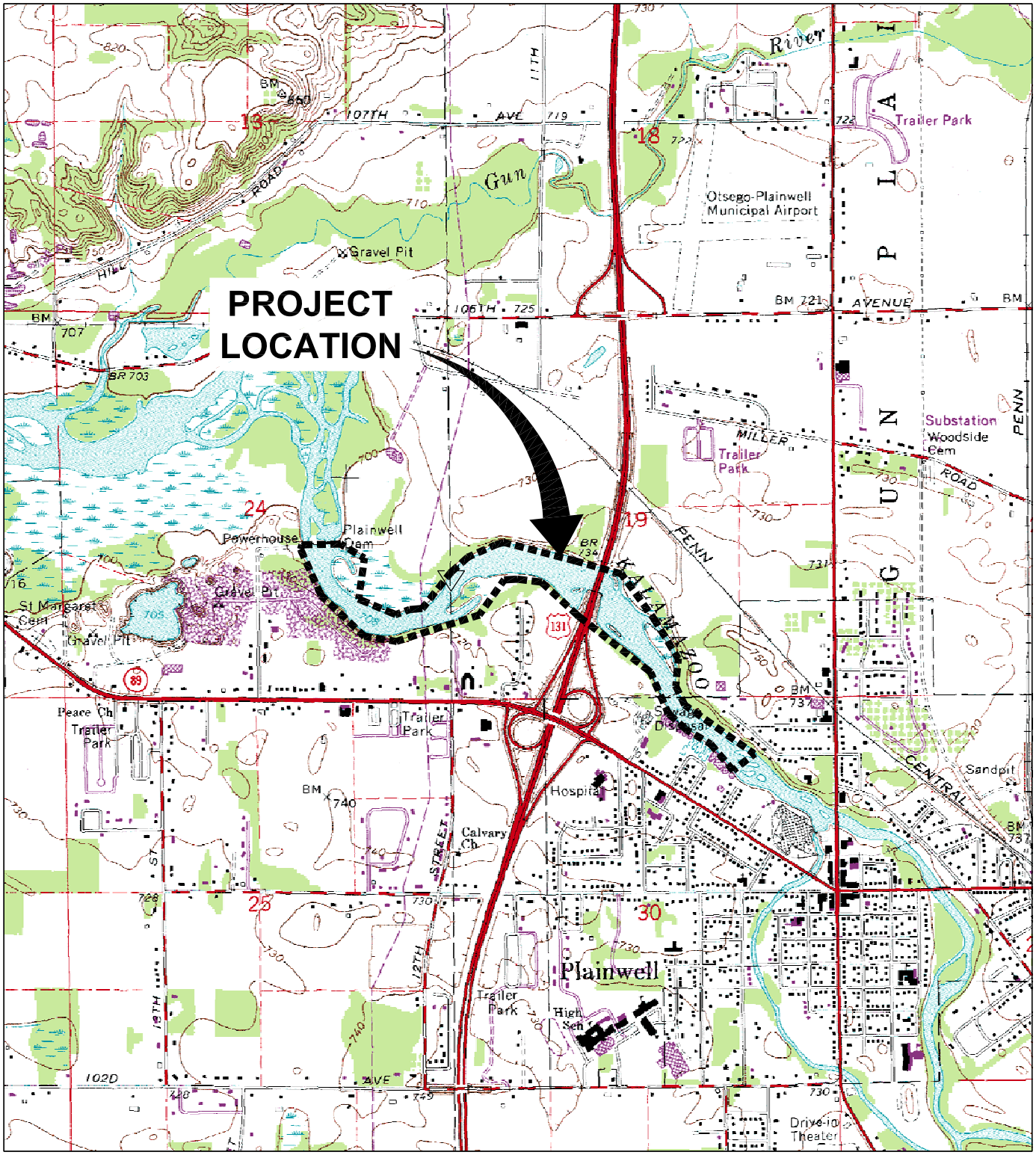
ARCADIS BBL. 2007b. *Former Plainwell Impoundment Time-Critical Removal Action Construction Quality Assurance Plan,* March 2007.

ARCADIS BBL. 2007c. *Multi-Area Health and Safety Plan*, March 2007.

MDEQ. 2006. Operation Memorandum 147-1, Manifesting Polychlorinated Biphenyls (PCB) Waste, September 1, 2006.

ARCADIS

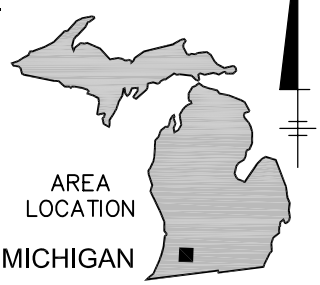
**Figures**




REFERENCE: USGS QUADS., 7.5 MIN. SERIES, DRG TOPOGRAPHIC MAP - ALLEGAN COUNTY, KALAMAZOO MICHIGAN.

0 2000' 4000'

Approximate Scale: 1 in. = 2000 ft.




KALAMAZOO RIVER STUDY GROUP
ALLIED PAPER, INC./PORTAGE CREEK/ KALAMAZOO RIVER SUPERFUND SITE

**PLAINWELL TCRA TRAFFIC CONTROL PLAN**

## SITE LOCATION MAP

ARCADIS

FIGURE **1-1**

CITY:SYR-NY DIV/GROUP:141 DB:KLS KEW LJP KLS PIC:(Opt) PM:(Regd) TM:E.HRITSUK LYR:(Opt)ON=*;OFF=*REF* LAYOUT: 1-1 SAVED: 5/21/2008 12:49 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: PLTFULL.CTB PLOTTED: 5/21/2008 12:49 PM BY: SARTORI, KATHERINE
G:\CAD\ACTIVE\064586\0000\0000\1\DWG\64586N01.DWG
XREFS: IMAGES: PROJECTNAME: --
64586X01.TIF

ARCADIS

## Appendix A

Example Waste Manifest

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

**UNIFORM HAZARDOUS WASTE MANIFEST**

| 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | **4. Manifest Tracking Number** |
|---|---|---|---|
| | | | |

**GENERATOR**

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

Facility's Phone:

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Waste Codes |
|---|---|---|---|---|---|---|
| | 1. | | | | | |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name — Signature — Month — Day — Year

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit: _____

Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name — Signature — Month — Day — Year

Transporter 2 Printed/Typed Name — Signature — Month — Day — Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month — Day — Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | | | |

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name — Signature — Month — Day — Year



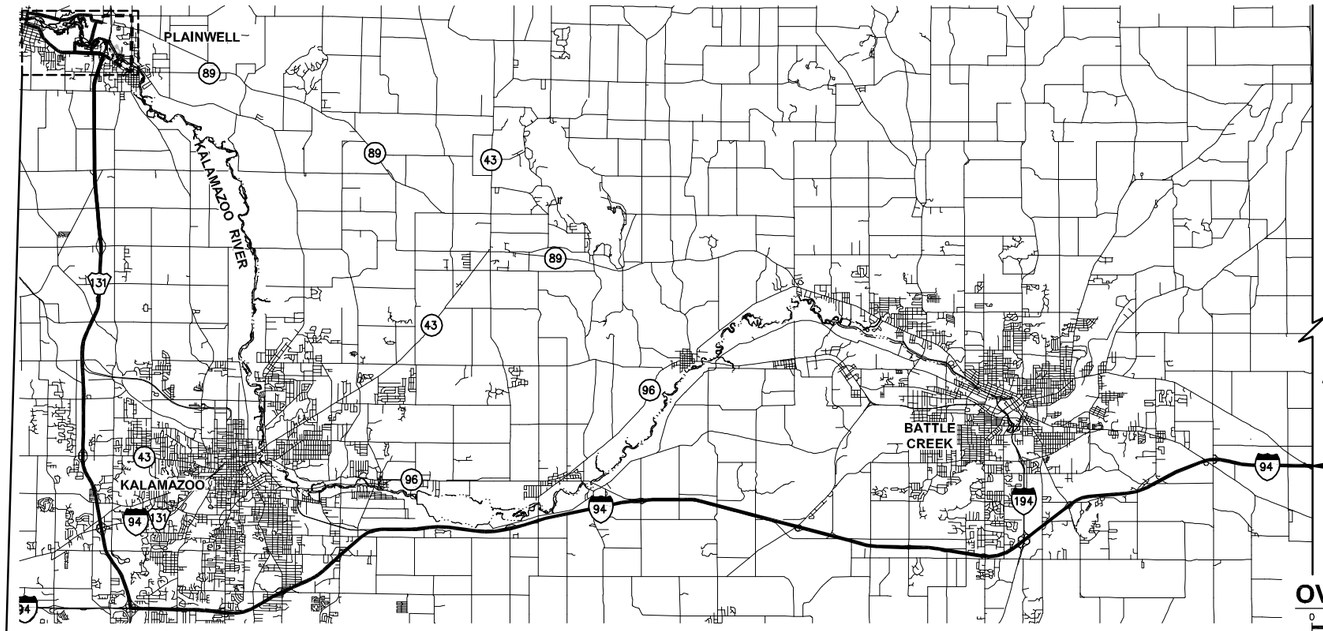


**DESIGNATED FACILITY TO DESTINATION STATE (IF REQUIRED)**

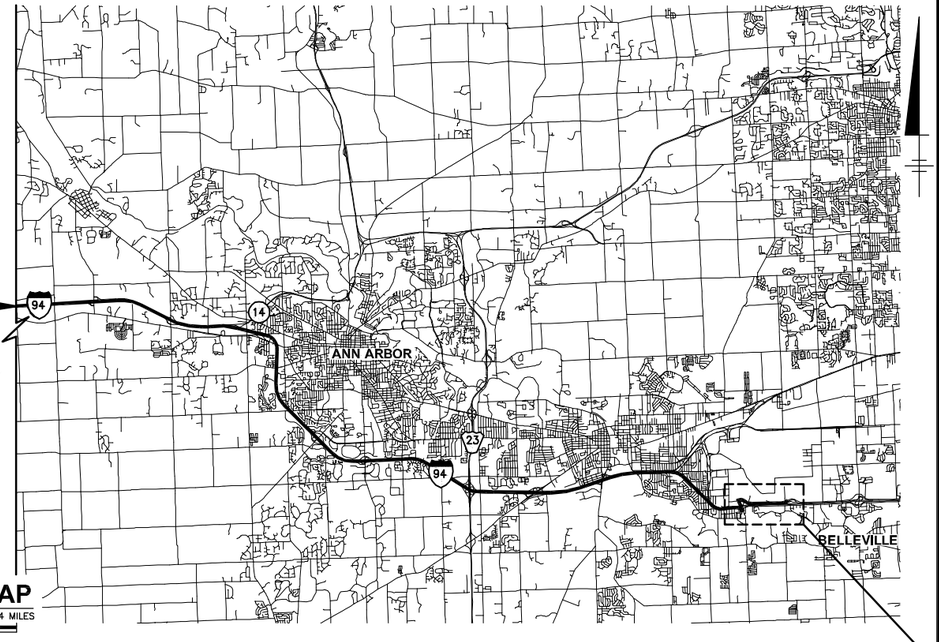
ARCADIS

**Attachment 1**

TCRA Design Report Contract Drawing



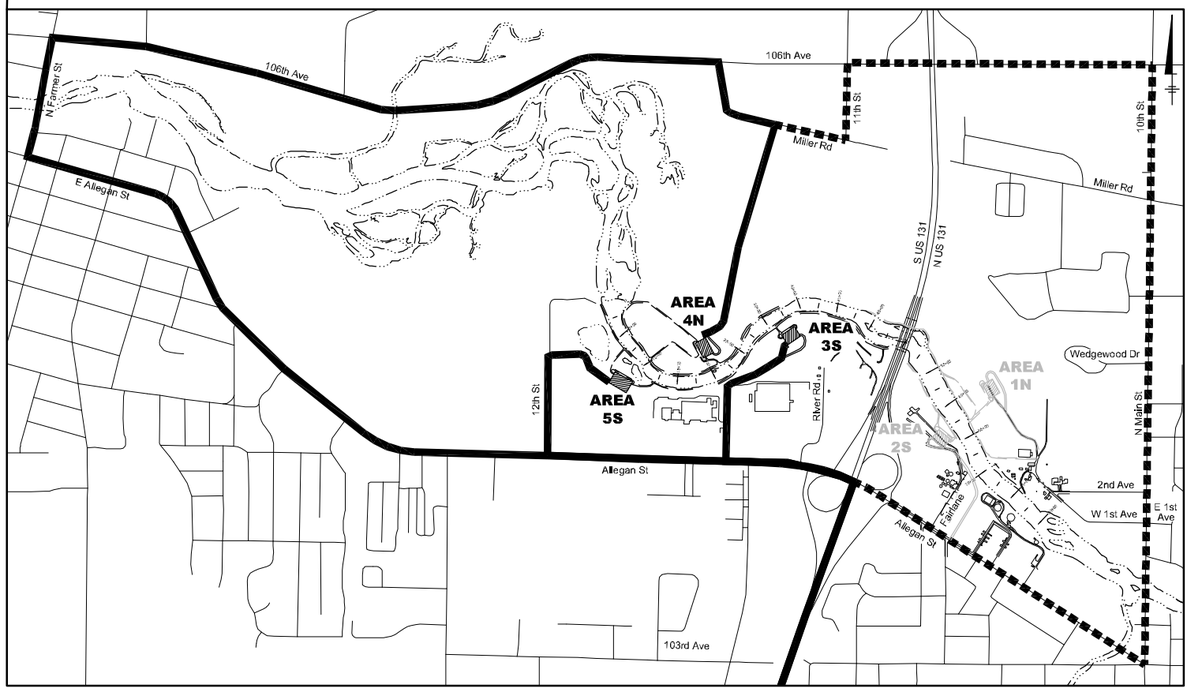

APPROXIMATELY 57 MILES




## OVERALL MAP

0 2 MILES 4 MILES

SCALE: 1"=2 MILES




## INSET MAP (RIVER AREA)

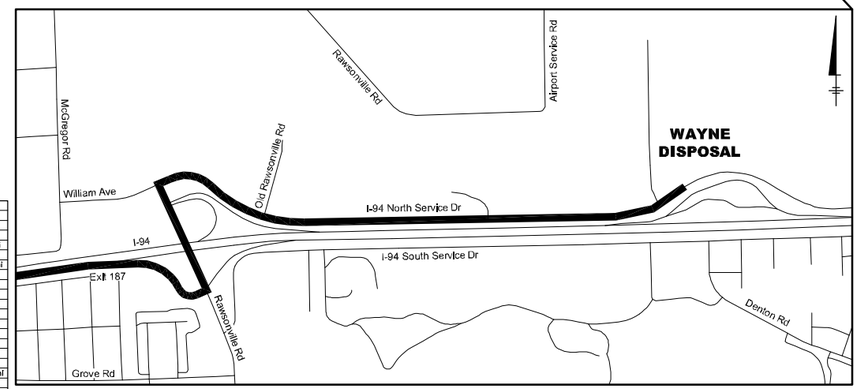
0 1000' 2000'

SCALE: 1"=1000'

| DIRECTIONS TO/FROM AREA 3S AND WAYNE DISPOSAL | |
|---|---|
| TO: | |
| Turn right on I-94 North Service Dr toward Rawsonville Rd. | 1.5 mi |
| Turn left at Rawsonville Rd. | 0.3 mi |
| Merge onto I-94 West toward Ann Arbor | 113 mi |
| Take exit 74B to merge onto US-131 North toward Grand Rapids | 15 mi |
| Exit 49B (M-89 West exit) toward Allegan; | |
| Merge onto Allegan St./M-89 | 0.2 mi |
| End at Meijer parking lot main exit | |
| FROM: | |
| Exit the Meijer parking lot through the main exit | <0.1 mi |
| Turn left on Allegan St./M-89 East | 0.2 mi |
| Merge onto US-131 South toward Kalamazoo | 15 mi |
| Take exit 34A and merge onto for I-94 East toward Detroit | 113 mi |
| Exit at 187 and turn left on Rawsonville Rd. | 0.3 mi |
| Turn right onto I-94 North Service Dr. | 1.5 mi |
| End at Entrance into Wayne Disposal | |

| DIRECTIONS TO/FROM AREA 4N AND WAYNE DISPOSAL – PRIMARY ROUTE | |
|---|---|
| TO: | |
| Turn right on I-94 North Service Dr toward Rawsonville Rd | 1.5 mi |
| Turn left at Rawsonville Rd | 0.3 mi |
| Turn left to merge onto I-94 W toward Ann Arbor | 113 mi |
| Take exit 74B to merge onto I-94-BR E/US-131 N toward Grand Rapids | 2.1 mi |
| Continue on US-131 N | 13.1 mi |
| Take exit 49B to merge onto Allegan St/M-89 W toward Allegan | 2.7 mi |
| Turn right at N Farmer St | 0.3 mi |
| Turn right at 106th Ave/E River St | 1.7 mi |
| Turn right at Miller Rd | 0.2 mi |
| End at Miller Rd. entrance | |
| FROM: | |
| Turn left on Miller Rd toward 106th Ave | 0.2 mi |
| Turn left at 106th Ave | 1.7 mi |
| Turn left at N Farmer St | 0.3 mi |
| Turn left at E Allegan St/M-89 | 2.3 mi |
| Turn right to merge onto US-131 S toward Kalamazoo | 12.7 mi |
| Continue on I-94-BR W | 2.4 mi |
| Take exit 34A for I-94 E toward Detroit | 0.4 mi |
| Keep left at the fork to continue toward I-94 E and merge onto I-94 E | 113 mi |
| Take exit 187 for Rawsonville Rd | 0.3 mi |
| Turn left at Rawsonville Rd | 0.3 mi |
| Turn right at I-94 North Service Dr | 1.5 mi |
| End at Entrance into Wayne Disposal | |

| DIRECTIONS TO/FROM AREA 4N AND WAYNE DISPOSAL – ALTERNATE ROUTE | |
|---|---|
| TO: | |
| Turn right on I-94 North Service Dr toward Rawsonville Rd | 1.5 mi |
| Turn left at Rawsonville Rd | 0.3 mi |
| Turn left to merge onto I-94 W toward Ann Arbor | 113 mi |
| Take exit 74B to merge onto I-94-BR E/US-131 N toward Grand Rapids | 2.1 mi |
| Continue on US-131 N | 12.7 mi |
| Take exit 49A for M-89 E toward Plainwell | 0.3 mi |
| Turn right at Allegan St/M-89 E | 0.8 mi |
| Turn left at N Main St | 0.9 mi |
| Continue on 10th St | 0.6 mi |
| Turn left at 106th Ave | 0.8 mi |
| Turn left at 11th St | 0.2 mi |
| Turn right at Miller Rd | 0.3 mi |
| End at Miller Rd. entrance | |
| FROM: | |
| Turn right on Miller Rd toward 11th St | 0.3 mi |
| Turn left at 11th St | 0.2 mi |
| Turn right at 106th Ave | 0.8 mi |
| Turn right at 10th St | 0.6 mi |
| Continue on N Main St | 0.9 mi |
| Turn right at Allegan St/M-89 | 1.0 mi |
| Turn left to merge onto US-131 S toward Kalamazoo | 12.7 mi |
| Continue on I-94-BR W | 2.4 mi |
| Take exit 34A for I-94 E toward Detroit | 0.4 mi |
| Keep left at the fork to continue toward I-94 E and merge onto I-94 E | 113 mi |
| Take exit 187 for Rawsonville Rd | 0.3 mi |
| Turn left at Rawsonville Rd | 0.3 mi |
| Turn right at I-94 North Service Dr | 1.5 mi |
| End at Entrance into Wayne Disposal | |




## INSET MAP (WAYNE DISPOSAL)

0 1000' 2000'

SCALE: 1"=1000'

| DIRECTIONS TO/FROM AREA 5S AND WAYNE DISPOSAL | |
|---|---|
| TO: | |
| Turn right on I-94 North Service Dr toward Rawsonville Rd. | 1.5 mi |
| Turn left at Rawsonville Rd. | 0.3 mi |
| Merge onto I-94 West toward Ann Arbor | 113 mi |
| Take exit 74B to merge onto US-131 North toward Grand Rapids | 15 mi |
| Exit 49B (M-89 West exit) toward Allegan; | |
| Merge onto Allegan St./M-89 | 1.0 mi |
| Turn right on 12th St. | 0.3 mi |
| End at 12th St. entrance | |
| FROM: | |
| Turn left on 12th St. | 0.3 mi |
| Turn left on Allegan St./M-89 | 1.0 mi |
| Merge onto US-131 South toward Kalamazoo | 15 mi |
| Take exit 34A and Merge onto for I-94 East toward Detroit | 113 mi |
| Exit at 187 and turn left on Rawsonville Rd. | 0.3 mi |
| Turn right onto I-94 North Service Dr. | 1.5 mi |
| End at Entrance into Wayne Disposal | |

### LEGEND:

- 60+00 — STATION POINT (IN HUNDREDS OF FEET)
- KALAMAZOO RIVER CENTERLINE AND STATION LINE
- ACCESS OFF-ROAD TRUCK TRAFFIC
- ACCESS ROAD FOR TRACTOR TRAILER TRUCK TRAFFIC
- STAGING AREA
- PRIMARY TRUCK ROUTE
- ALTERNATE TRUCK ROUTE

### NOTES:

1. TAX PARCELS OBTAINED FROM ALLEGAN COUNTY LAND INFORMATION SERVICES GIS DEPT. INCLUDE OTSEGO AND GUN PLAIN TOWNSHIPS AND PLAINWELL CITY, AND ARE PROJECTED IN NAD 83 STATE PLANE MICHIGAN SOUTH.
2. ALLEGAN AND KALAMAZOO COUNTY MAPPING OBTAINED FROM MICHIGAN RESOURCE INFORMATION SYSTEM.

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: _____ USE TO VERIFY FIGURE REPRODUCTION SCALE

| No. | Date | Revisions | By | Ckd |
|---|---|---|---|---|



| Professional Engineer's Name | | |
|---|---|---|
| STEPHEN GARBACIAK JR. | | |
| Professional Engineer's No. | | |
| 6201046373 | | |
| State | Date Signed | Project Mgr. |
| MICHIGAN | | SDG |
| Designed by | Drawn by | Checked by |
| MMB | AGS | EJH |

ARCADIS

ARCADIS G&M OF MICHIGAN, LLC.

KALAMAZOO RIVER STUDY GROUP • ALLIED PAPER, INC/PORTAGE CREEK/KALAMAZOO RIVER SUPERFUND SITE

PLAINWELL TCRA DESIGN REPORT

# ACCESS ROUTE AND DIRECTIONS TO WAYNE DISPOSAL

GENERAL

ARCADIS Project No.
B0064586.0000.00001

Date
MARCH 2008

ARCADIS
30 W. MONROE ST
SUITE 1710
CHICAGO, IL 60448-2404
TEL. 312.332.4937

**G-3.1A**

CITY:SYRACUSE DIV/GROUP:85 DB:AGS LD:AGS PIC: PM:SDG TM:EJH LYR:ON=*;OFF=*REF* PAGESETUP: ---
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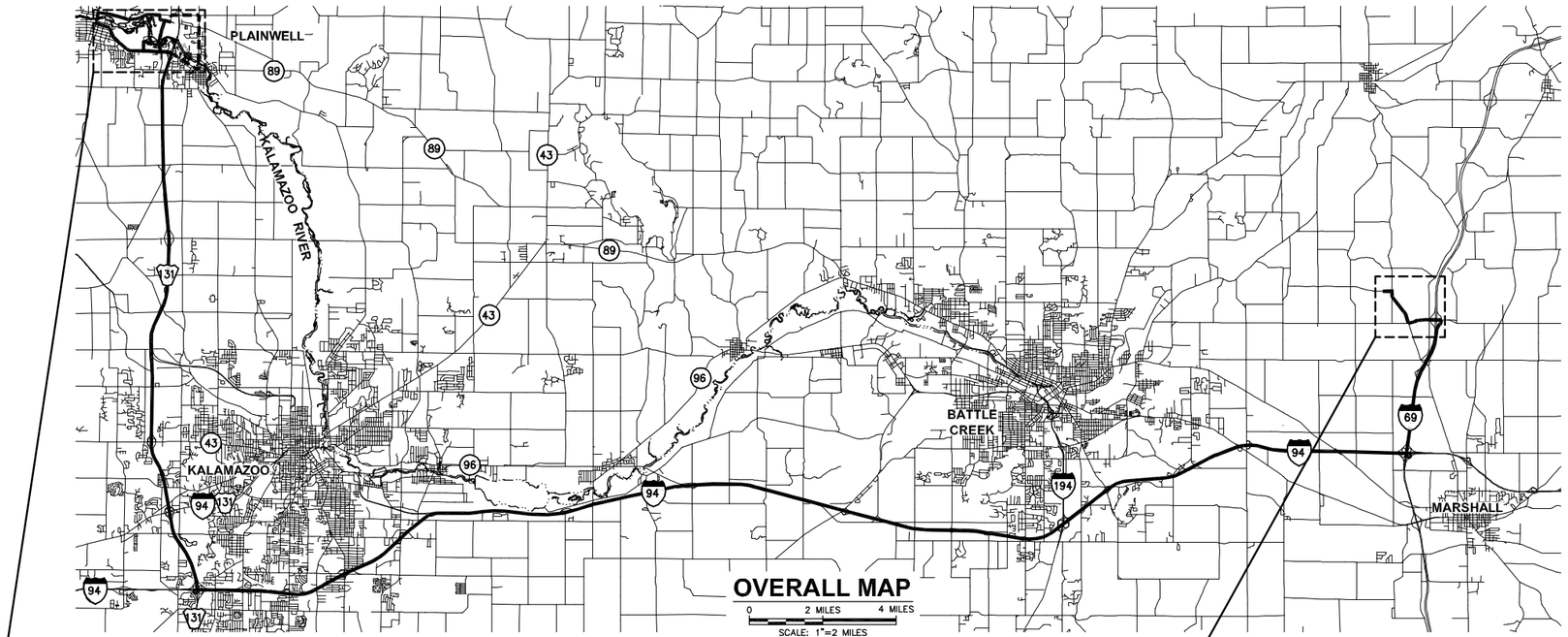
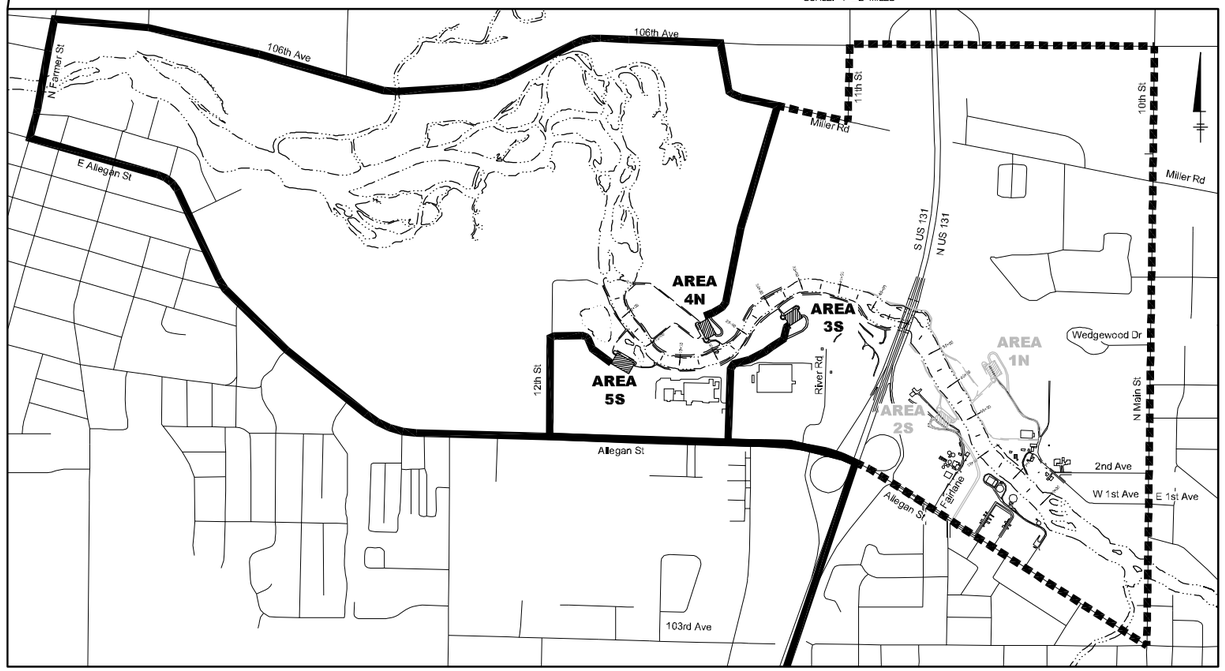



## OVERALL MAP

0 2 MILES 4 MILES

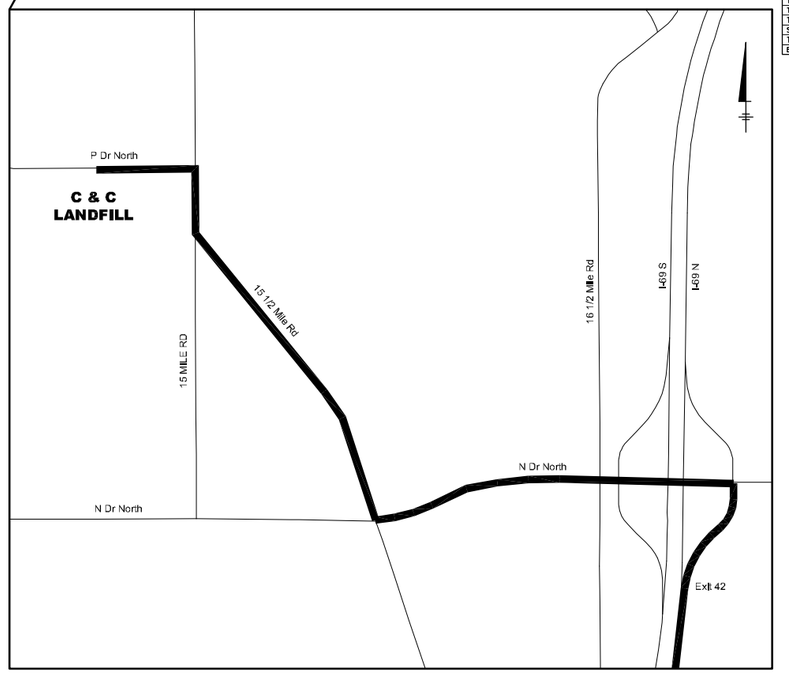
SCALE: 1"=2 MILES




## INSET MAP (RIVER AREA)

0 1000' 2000'

SCALE: 1"=1000'




## INSET MAP (C & C LANDFILL)

0 1000' 2000'

SCALE: 1"=1000'

| DIRECTIONS TO/FROM AREA 3S AND C & C LANDFILL | |
|---|---|
| TO: | |
| Turn right at P Dr. North | 0.1 mi |
| Turn right at 15 Mile Rd | 0.2 mi |
| Slight left at 15 1/2 Mile Rd | 0.9 mi |
| Turn left at N Dr. North | 0.9 mi |
| Merge onto I-69 South toward Ft. Wayne | 3.3 mi |
| Merge onto I-94 West toward Kalamazoo | 34 mi |
| Take exit 74B to merge onto US-131 North toward Grand Rapids | 15 mi |
| Exit 49B (M-89 West exit) toward Allegan; | |
| Merge onto Allegan St./M-89 | 0.2 mi |
| End at Meijer parking lot main exit | |
| FROM: | |
| Exit the Meijer parking lot through the main exit | <0.1 mi |
| Turn left on Allegan St./M-89 | 0.2 mi |
| Merge onto US-131 South toward Kalamazoo | 15 mi |
| Take exit 34A and merge onto for I-94 East toward Detroit | 34 mi |
| Take exit 108 for I-69 North toward Lansing | 3.3 mi |
| Take exit 42 for N Dr. North and turn left at N Dr. North | 0.9 mi |
| Turn right at 15 1/2 Mile Rd | 0.9 mi |
| Slight right at 15 Mile Rd | 0.2 mi |
| Turn left at P Dr. North | 0.1 mi |
| End C & C Landfill entrance | |

| DIRECTIONS TO/FROM AREA 5S AND C & C LANDFILL | |
|---|---|
| TO: | |
| Turn right at P Dr. North | 0.1 mi |
| Turn right at 15 Mile Rd | 0.2 mi |
| Slight left at 15 1/2 Mile Rd | 0.9 mi |
| Turn left at N Dr. North | 0.9 mi |
| Merge onto I-69 South toward Ft. Wayne | 3.3 mi |
| Merge onto I-94 West toward Kalamazoo | 34 mi |
| Take exit 74B to merge onto US-131 North toward Grand Rapids | 15 mi |
| Exit 49B (M-89 West exit) toward Allegan; | |
| Merge onto Allegan St./M-89 | 1.0 mi |
| Turn right on 12th St. | 0.3 mi |
| End at 12th St. entrance | |
| FROM: | |
| Turn left on 12th St. | 0.3 mi |
| Turn left on Allegan St./M-89 | 1.0 mi |
| Merge onto US-131 South toward Kalamazoo | 15 mi |
| Take exit 34A and Merge onto for I-94 East toward Detroit | 34 mi |
| Take exit 108 for I-69 North toward Lansing | 3.3 mi |
| Take exit 42 for N Dr. North and turn left at N Dr North | 0.9 mi |
| Turn right at 15 1/2 Mile Rd | 0.9 mi |
| Slight right at 15 Mile Rd | 0.2 mi |
| Turn left at P Dr. North | 0.1 mi |
| End C & C Landfill entrance | |

| DIRECTIONS TO/FROM AREA 4N AND C & C LANDFILL – PRIMARY ROUTE | |
|---|---|
| TO: | |
| Turn right on P Dr N toward 15 Mile Rd | 0.1 mi |
| Turn right at 15 Mile Rd | 0.2 mi |
| Slight left at 15 1/2 Mile Rd | 0.9 mi |
| Turn left at N Dr N | 1.1 mi |
| Turn right to merge onto I-69 S toward Ft Wayne | 3.3 mi |
| Take exit 38 to merge onto I-94 W toward Chicago | 34.5 mi |
| Take exit 74B to merge onto I-94–BR E/US-131 N toward Grand Rapids | 2.1 mi |
| Continue on US-131 N | 13.1 mi |
| Take exit 49B to merge onto Allegan St/M-89 W toward Allegan | 2.7 mi |
| Turn right at N Farmer St | 0.3 mi |
| Turn right at 106th Ave/E River St Continue to follow 106th Ave | 1.7 mi |
| Turn right at Miller Rd | 0.2 mi |
| End at Miller Rd entrance | |
| FROM: | |
| Turn left on Miller Rd toward 106th Ave | 0.2 mi |
| Turn left at 106th Ave | 1.7 mi |
| Turn left at N Farmer St | 0.3 mi |
| Turn left at E Allegan St/M-89 | 2.3 mi |
| Turn right to merge onto US-131 S toward Kalamazoo | 12.7 mi |
| Continue on I-94–BR W | 2.4 mi |
| Take exit 34A for I-94 E toward Detroit | 0.4 mi |
| Keep left at the fork to continue toward I-94 E and merge onto I-94 E | 34.0 mi |
| Take exit 108 for I-69 N toward Lansing | 0.9 mi |
| Continue toward I-69 N and merge onto I-69 N | 3.3 mi |
| Take exit 42 for N Dr N | 0.4 mi |
| Turn left at N Dr N | 1.4 mi |
| Turn right at 15 1/2 Mile Rd | 0.9 mi |
| Slight right at 15 Mile Rd | 0.2 mi |
| Turn left at P Dr N | 0.1 mi |
| End at C & C Landfill entrance | |

| DIRECTIONS TO/FROM AREA 4N AND C & C LANDFILL – ALTERNATE ROUTE | |
|---|---|
| TO: | |
| Turn right on P Dr N toward 15 Mile Rd | 0.1 mi |
| Turn right at 15 Mile Rd | 0.2 mi |
| Slight left at 15 1/2 Mile Rd | 0.9 mi |
| Turn left at N Dr N | 1.1 mi |
| Turn right to merge onto I-69 S toward Ft Wayne | 3.3 mi |
| Take exit 38 to merge onto I-94 W toward Chicago | 34.5 mi |
| Take exit 74B to merge onto I-94–BR E/US-131 N toward Grand Rapids | 2.1 mi |
| Continue on US-131 N | 12.7 mi |
| Take exit 49A for M-89 E toward Plainwell | 0.3 mi |
| Turn right at Allegan St/M-89 E | 0.8 mi |
| Turn left at N Main St | 0.9 mi |
| Continue on 10th St | 0.6 mi |
| Turn left at 106th Ave | 0.8 mi |
| Turn left at 11th St | 0.2 mi |
| Turn right at Miller Rd | 0.3 mi |
| End at Miller Rd entrance | |
| FROM: | |
| Turn right on Miller Rd toward 11th St | 0.3 mi |
| Turn left at 11th St | 0.2 mi |
| Turn right at 106th Ave | 0.8 mi |
| Turn right at 10th St | 0.6 mi |
| Continue on N Main St | 0.9 mi |
| Turn right at Allegan St/M-89 | 1.0 mi |
| Turn left to merge onto US-131 S toward Kalamazoo | 12.7 mi |
| Continue on I-94–BR W | 2.4 mi |
| Take exit 34A for I-94 E toward Detroit | 0.4 mi |
| Keep left at the fork to continue toward I-94 E and merge onto I-94 E | 34.0 mi |
| Take exit 108 for I-69 N toward Lansing | 0.9 mi |
| Continue toward I-69 N and merge onto I-69 N | 3.3 mi |
| Take exit 42 for N Dr N | 0.4 mi |
| Turn left at N Dr N | 1.4 mi |
| Turn right at 15 1/2 Mile Rd | 0.9 mi |
| Slight right at 15 Mile Rd | 0.2 mi |
| Turn left at P Dr N | 0.1 mi |
| End at C & C Landfill entrance | |

NOTES:

1. TAX PARCELS OBTAINED FROM ALLEGAN COUNTY LAND INFORMATION SERVICES GIS DEPT. INCLUDE OTSEGO AND GUN PLAIN TOWNSHIPS AND PLAINWELL CITY, AND ARE PROJECTED IN NAD 83 STATE PLANE MICHIGAN SOUTH.
2. ALLEGAN AND KALAMAZOO COUNTY MAPPING OBTAINED FROM MICHIGAN RESOURCE INFORMATION SYSTEM.

LEGEND:

- 60+00 — STATION POINT (IN HUNDREDS OF FEET)
- KALAMAZOO RIVER CENTERLINE AND STATION LINE
- ACCESS OFF-ROAD TRUCK TRAFFIC
- ACCESS ROAD FOR TRACTOR TRAILER TRUCK TRAFFIC
- STAGING AREA
- PRIMARY TRUCK ROUTE
- ALTERNATE TRUCK ROUTE

XREFS: G4586X00 G4586X01 G4586X02 G4586X03

IMAGES: PROJECTNAME: —

LAYOUT: G-3.1B SAVED: 3/13/2008 1:17 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: — PLOTSTYLETABLE: PLTCONT1.CTB PLOTTED: 3/13/2008 1:18 PM BY: SAMOS, ALEX

PW:SDG TIME:JH LYRON="OFF"REF*

DB:AGS LD:AGS PIC:

DIV/GROUP:85

CITY:SYRACUSE G:\CADACT\B0064586\0000000001\DWG\TCP\G4586G02.DWG

SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

| No. | Date | Revisions | By | Ckd |
|---|---|---|---|---|



| Professional Engineer's Name | | |
|---|---|---|
| STEPHEN GARBACIAK JR. | | |
| Professional Engineer's No. | | |
| 6201046373 | | |
| State | Date Signed | Project Mgr. |
| MICHIGAN | | SDG |
| Designed by | Drawn by | Checked by |
| MMB | AGS | EJH |

ARCADIS

ARCADIS G&M OF MICHIGAN, LLC.

KALAMAZOO RIVER STUDY GROUP • ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SUPERFUND SITE

PLAINWELL TCRA DESIGN REPORT

# ACCESS ROUTE AND DIRECTIONS TO C & C LANDFILL

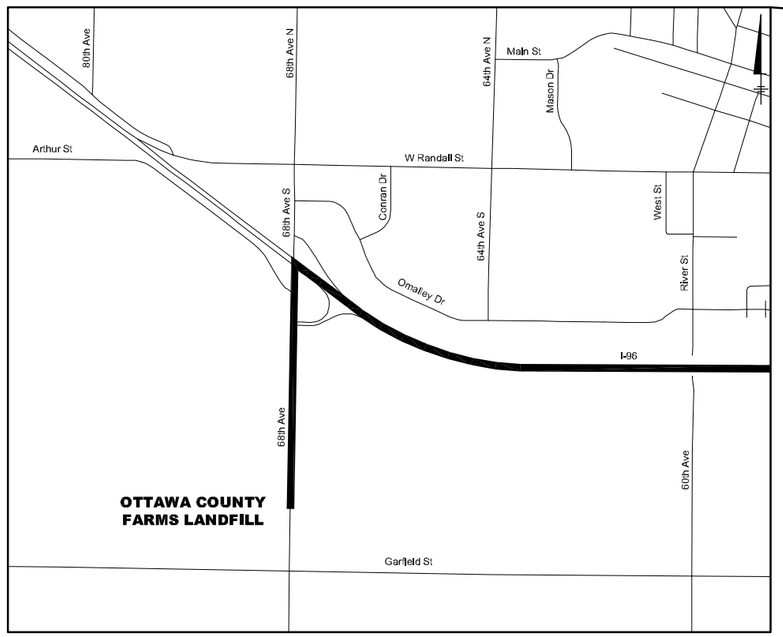
GENERAL

ARCADIS Project No. B0064586.0000.00001

Date MARCH 2008

ARCADIS
30 W. MONROE ST
SUITE 1710
CHICAGO, IL 60448-2404
TEL. 312.332.4937

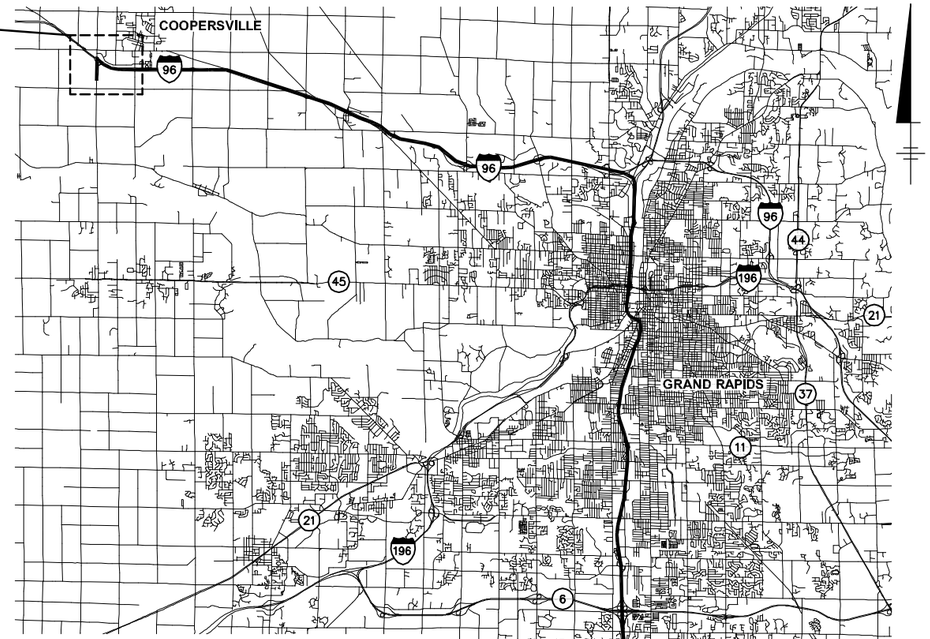
G-3.1B



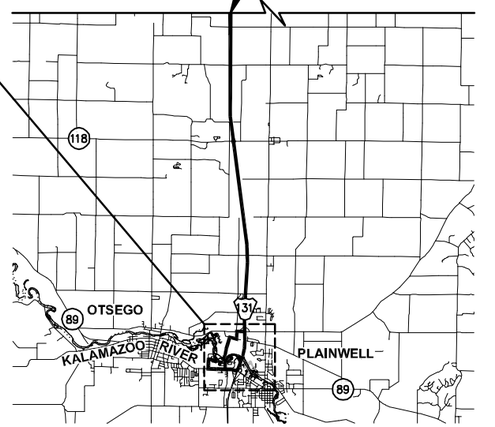

## INSET MAP (OTTAWA COUNTY FARMS LANDFILL)

0 1000' 2000'

SCALE: 1"=1000'



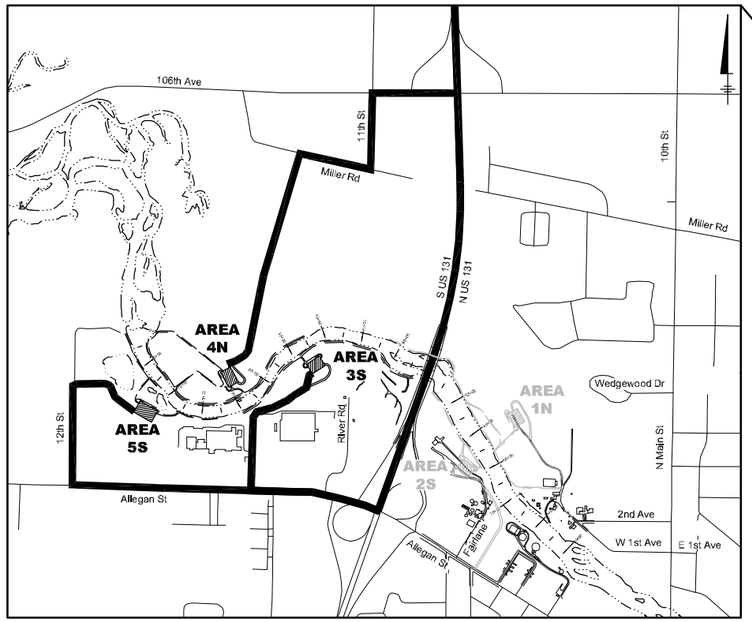

APPROXIMATELY
15 MILES




## OVERALL MAP

0 2 MILES 4 MILES

SCALE: 1"=2 MILES




## INSET MAP (RIVER AREA)

0 1000' 2000'

SCALE: 1"=1000'

NOTES:

1. TAX PARCELS OBTAINED FROM ALLEGAN COUNTY LAND INFORMATION SERVICES GIS DEPT. INCLUDE OTSEGO AND GUN PLAIN TOWNSHIPS AND PLAINWELL CITY, AND ARE PROJECTED IN NAD 83 STATE PLANE MICHIGAN SOUTH.
2. ALLEGAN AND KALAMAZOO COUNTY MAPPING OBTAINED FROM MICHIGAN RESOURCE INFORMATION SYSTEM.

LEGEND:

- 60+00 — STATION POINT (IN HUNDREDS OF FEET)
- KALAMAZOO RIVER CENTERLINE AND STATION LINE
- ACCESS OFF-ROAD TRUCK TRAFFIC
- ACCESS ROAD FOR TRACTOR TRAILER TRUCK TRAFFIC
- STAGING AREA
- PRIMARY TRUCK ROUTE

DIRECTIONS TO/FROM AREA 3S AND OTTAWA COUNTY FARMS LANDFILL

| TO: | |
|---|---|
| Head north on 68th Ave | 0.4 mi |
| Turn right to merge onto I-96 E toward GD Rapids | 14.3 mi |
| Take exit 31A to merge onto US-131 S toward Kalamazoo/GD Rapids | 39.9 mi |
| Take exit 49B for M-89 W toward Otsego | 0.3 mi |
| Turn right at Allegan St/M-89 W | 0.2 mi |
| End at Meijer parking lot main exit | |
| FROM: | |
| Exit the Meijer parking lot through the main exit | <0.1 mi |
| Turn left on Allegan St/M-89 toward River Rd | 0.4 mi |
| Turn left to merge onto US-131 N toward GD Rapids | 39.6 mi |
| Take exit 89 on the left for M-37 N/I-96 W toward Muskegon | 0.8 mi |
| Merge onto I-96 W | 14.2 mi |
| Take exit 16 toward Eastmanville/Coopersville/CR-B35 | 0.2 mi |
| Turn left at 68th Ave | 0.7 mi |
| End Ottawa County Farms Landfill entrance | |

DIRECTIONS TO/FROM AREA 4N AND OTTAWA COUNTY FARMS LANDFILL

| TO: | |
|---|---|
| Head north on 68th Ave | 0.4 mi |
| Turn right to merge onto I-96 E toward GD Rapids | 14.3 mi |
| Take exit 31A to merge onto US-131 S toward Kalamazoo/GD Rapids | 38.9 mi |
| Take exit 50 for 106th Ave | 0.2 mi |
| Turn right at 106th Ave | 0.1 mi |
| Turn left at 11th St | 0.2 mi |
| Turn right at Miller Rd | 0.3 mi |
| End at Miller Rd. entrance | |
| FROM: | |
| Turn right on Miller Rd toward 11th St | 0.3 mi |
| Turn left at 11th St | 0.2 mi |
| Turn right at 106th Ave | 0.3 mi |
| Turn left to merge onto US-131 N toward GD Rapids | 38.5 mi |
| Take exit 89 on the left for M-37 N/I-96 W toward Muskegon | 0.8 mi |
| Merge onto I-96 W | 14.2 mi |
| Take exit 16 toward Eastmanville/Coopersville/CR-B35 | 0.2 mi |
| Turn left at 68th Ave | 0.7 mi |
| End Ottawa County Farms Landfill entrance | |

DIRECTIONS TO/FROM AREA 5S AND OTTAWA COUNTY FARMS LANDFILL

| TO: | |
|---|---|
| Head north on 68th Ave | 0.4 mi |
| Turn right to merge onto I-96 E toward GD Rapids | 14.3 mi |
| Take exit 31A to merge onto US-131 S toward Kalamazoo/GD Rapids | 39.9 mi |
| Take exit 49B for M-89 W toward Otsego | 0.3 mi |
| Turn right at Allegan St/M-89 W | 0.7 mi |
| Turn right at 12th St | 0.2 mi |
| End at 12th St. entrance | |
| FROM: | |
| Turn left on 12th St toward Allegan St/M-89 | 0.2 mi |
| Turn left at Allegan St/M-89 | 0.9 mi |
| Turn left to merge onto US-131 N toward GD Rapids | 39.6 mi |
| Take exit 89 on the left for M-37 N/I-96 W toward Muskegon | 0.8 mi |
| Merge onto I-96 W | 14.2 mi |
| Take exit 16 toward Eastmanville/Coopersville/CR-B35 | 0.2 mi |
| Turn left at 68th Ave | 0.7 mi |


CITY:SYRACUSE DIV/GROUP:85 DB:AGS LD:AGS PIC: PM:SDG TM:EJH LYRON="OFF"REF" ACADVER: 17.0S (LMS TECH) PAGESETUP: ---
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IMAGES: PROJECTNAME: ---
XREFs: 64586X00 64586X01 64586X02 64586X03


SCALE(S) AS INDICATED

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING: USE TO VERIFY FIGURE REPRODUCTION SCALE

| No. | Date | Revisions | By | Ckd |
|---|---|---|---|---|



| Professional Engineer's Name | | | |
|---|---|---|---|
| STEPHEN GARBACIAK JR. | | | |
| Professional Engineer's No. | | | |
| 6201046373 | | | |
| State | Date Signed | Project Mgr. | |
| MICHIGAN | | SDG | |
| Designed by | Drawn by | Checked by | |
| MMB | AGS | EJH | |

ARCADIS

ARCADIS G&M OF MICHIGAN, LLC.

KALAMAZOO RIVER STUDY GROUP • ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SUPERFUND SITE

PLAINWELL TCRA DESIGN REPORT

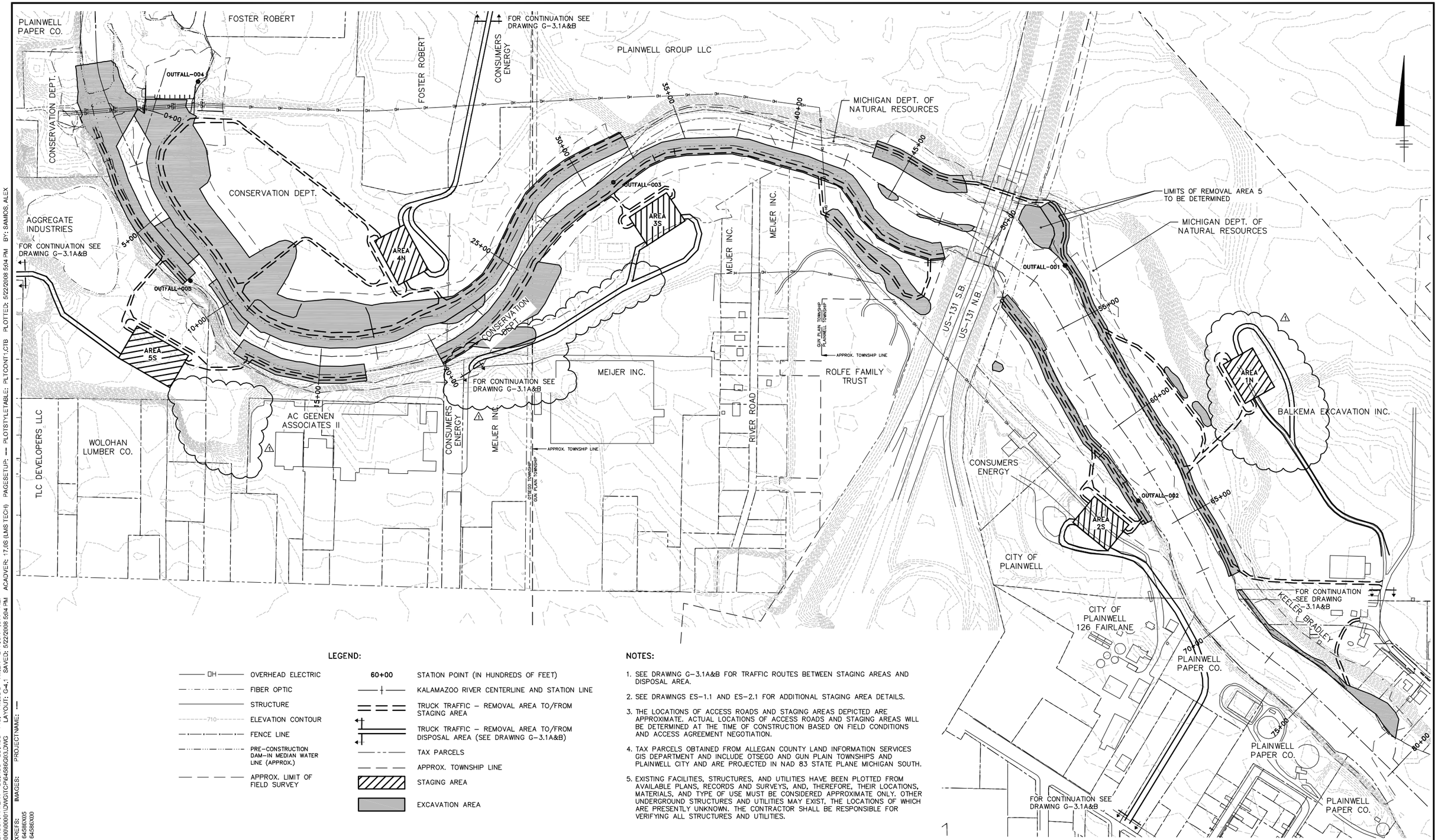
# ACCESS ROUTE AND DIRECTIONS TO OTTAWA COUNTY FARMS LANDFILL

GENERAL

| | |
|---|---|
| ARCADIS Project No. | B0064586.0000.00001 |
| Date | MARCH 2008 |


ARCADIS
30 W. MONROE ST
SUITE 1710
CHICAGO, IL 60448-2404
TEL. 312.332.4937


G-3.1C




LEGEND:

- OH — OVERHEAD ELECTRIC
- FIBER OPTIC
- STRUCTURE
- 710 — ELEVATION CONTOUR
- FENCE LINE
- PRE-CONSTRUCTION DAM-IN MEDIAN WATER LINE (APPROX.)
- APPROX. LIMIT OF FIELD SURVEY
- 60+00 — STATION POINT (IN HUNDREDS OF FEET)
- KALAMAZOO RIVER CENTERLINE AND STATION LINE
- TRUCK TRAFFIC – REMOVAL AREA TO/FROM STAGING AREA
- TRUCK TRAFFIC – REMOVAL AREA TO/FROM DISPOSAL AREA (SEE DRAWING G-3.1A&B)
- TAX PARCELS
- APPROX. TOWNSHIP LINE
- STAGING AREA
- EXCAVATION AREA

NOTES:

1. SEE DRAWING G-3.1A&B FOR TRAFFIC ROUTES BETWEEN STAGING AREAS AND DISPOSAL AREA.
2. SEE DRAWINGS ES-1.1 AND ES-2.1 FOR ADDITIONAL STAGING AREA DETAILS.
3. THE LOCATIONS OF ACCESS ROADS AND STAGING AREAS DEPICTED ARE APPROXIMATE. ACTUAL LOCATIONS OF ACCESS ROADS AND STAGING AREAS WILL BE DETERMINED AT THE TIME OF CONSTRUCTION BASED ON FIELD CONDITIONS AND ACCESS AGREEMENT NEGOTIATION.
4. TAX PARCELS OBTAINED FROM ALLEGAN COUNTY LAND INFORMATION SERVICES GIS DEPARTMENT AND INCLUDE OTSEGO AND GUN PLAIN TOWNSHIPS AND PLAINWELL CITY AND ARE PROJECTED IN NAD 83 STATE PLANE MICHIGAN SOUTH.
5. EXISTING FACILITIES, STRUCTURES, AND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE PLANS, RECORDS AND SURVEYS, AND, THEREFORE, THEIR LOCATIONS, MATERIALS, AND TYPE OF USE MUST BE CONSIDERED APPROXIMATE ONLY. OTHER UNDERGROUND STRUCTURES AND UTILITIES MAY EXIST, THE LOCATIONS OF WHICH ARE PRESENTLY UNKNOWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL STRUCTURES AND UTILITIES.

1

200' 0 200' 400'
1"=200'

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING. USE TO VERIFY FIGURE REPRODUCTION SCALE

| No. | Date | Revisions | By | Ckd |
|---|---|---|---|---|
| 1 | 4/11/07 | REVISED ROUTES FOR STAGING AREAS 3S, 5S, AND 1N AND LOCATION OF STAGING AREA 1N | | |



Professional Engineer's Name: STEPHEN GARBACIAK JR.
Professional Engineer's No.: 6201046373

| State | Date Signed | Project Mgr. |
|---|---|---|
| MICHIGAN | | SDG |
| Designed by | Drawn by | Checked by |
| TAS | AGS | EJH |

ARCADIS G&M OF MICHIGAN, LLC.

KALAMAZOO RIVER STUDY GROUP • ALLIED PAPER, INC./PORTAGE CREEK/KALAMAZOO RIVER SUPERFUND SITE
PLAINWELL TCRA DESIGN REPORT

# PROPOSED WORK LIMITS (RIVER AREA)

GENERAL

ARCADIS Project No.: B0064586.0000.00001
Date: FEBRUARY 2007

ARCADIS
30 W. MONROE ST
SUITE 1710
CHICAGO, IL 60448-2404
TEL. 312.332.4937

G-4.1

CITY:SYRACUSE DIV/GROUP:141/ENV DB:AGS LD:AGS PIC: PM:SDG TM:EH LYR:ON="OFF"*REF* G:\CAD\ACT\B0064586\0000000001\DWG\TCP64586G03.DWG LAYOUT: G-4.1 SAVED: 5/22/2008 5:04 PM ACADVER: 17.0S (LMS TECH) PAGESETUP: -- PLOTSTYLETABLE: PLTCONT1.CTB PLOTTED: 5/22/2008 5:04 PM BY: SAMIOS, ALEX
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